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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,757	01/17/2002	Hans Strandberg	P01,0581	8338
26574	7590	06/08/2004		
SCHIFF HARDIN, LLP PATENT DEPARTMENT 6600 SEARS TOWER CHICAGO, IL 60606-6473				
EXAMINER LAYNO, CARL HERNANDZ				
ART UNIT 3762			PAPER NUMBER	

DATE MAILED: 06/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/031,757	Applicant(s) STRANDBERG, HANS	
	Examiner <i>Carl H. Layno</i> Carl H. Layno	Art Unit 3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.  
 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.  
     4a) Of the above claim(s) 1-11 is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 12, 15 and 19 is/are rejected.  
 7) ☒ Claim(s) 13, 14, 16-18 and 20-24 is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 01 January 1702 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Acknowledgment is made of applicant's amendment which was received by the Office on April 12, 2004.

2. Claims 1-11 are canceled. Claims 12-24 are active.

#### ***Drawings***

3. Applicant is reminded of the informalities of the Drawings, which were objected to in the last Office Action (2/8/04). These drawings are acceptable for examination purposes only.

#### ***Specification***

4. In view of the applicant's modifications to the Abstract, the Examiner is withdrawing the objection, which were made against the specification in the last Office action.

#### ***Claim Rejections - 35 USC § 102***

5. Upon further reconsideration of applicant's arguments, the Examiner is withdrawing the 35 U.S.C 102(e) rejection of Mann et al '717 or Lu '192 (Applicant's prior art), which was made against claims 12 and 20 in the last Office action.

6. However, applicant's claims are rejected in view of the following new ground(s) of rejection:

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 12, 15, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Peterson et al '882.

The Peterson et al '882 patent describes a method and apparatus for treatment of arrhythmias including all of applicant's claimed pacemaker features. Applicant's attention is directed to Fig.2 which shows a pacemaker having an atrial detection circuit **204**, a ventricular detector circuit **200**, stimulation circuits **214,216,234,236,246,248**, a switching unit **208**, and a microprocessor **224**, for performing applicant's claimed "comparator", "mode switching", and "cardiac event interval determination" functions. In use, the device is capable of detecting both atrial fibrillation (AF) and atrial tachycardia (AT) (col.23 lines 34 thru col.25, line 28) by using an "AF/AT Evidence Counter", which may be incremented or decremented (i.e. capable of counting up or down) based upon sensed atrial and ventricular signal patterns (col.24, lines 18-29). Specifically, Far Field R-waves and their attendant R-R intervals are used in AF/AT determination (col.24, lines 44-51). An AF or AT occurs when the comparison of the value of the AF/AT Evidence Counter exceeds that of a predetermined threshold value of 32 (col.24, line 26). Once AF has been detected, the pacemaker automatically enters a rate stabilization pacing mode (col.2, lines 25-28). This mode is a non-atrial synchronous, ventricular rate stabilization

Art Unit: 3762

pacing mode (col.29, lines 22-25). The examiner considers this mode to be “non-tracking” since the ventricular pacing no longer tracks any atrial events.

In regard to claim 19, the pacemaker is capable of switching to DDI mode (col.5, line 40).

### ***Allowable Subject Matter***

9. Claims 13, 14, 16-18, and 20-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

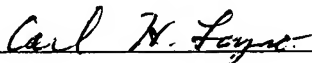
The Nappholz '523 patent is cited for its pertinent use of up/down counters (Fig.11) in a pacemaker for use in automatic mode switching (AMS) from a tracking to a non-tracking mode of operation (col.10, lines 38-60). Unlike applicant's device, that of Nappholz, ventricular inputs (i.e. V-V or R-R intervals) are not used as additional inputs to the comparator/counters and “cardiac event interval determination unit”.

Art Unit: 3762

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl H. Layno whose telephone number is (703) 308-3694. The examiner can normally be reached on Monday thru Thursday from 9 AM to 6 PM and every other Friday between 9AM and 5PM. A voice mail or E-mail message ([carl.layno@uspto.gov](mailto:carl.layno@uspto.gov)) may be left if desired.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes, can be reached on (703) 308-5181. All faxed correspondence should be sent to the Office's new official FAX number (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Legal Instruments Examiner (LIE) Brenda Webb whose telephone number is (703) 305-7520.

A handwritten signature in cursive script, reading "Carl H. Layno", is positioned above a horizontal line.

CARL LAYNO  
PRIMARY EXAMINER

CHL  
6/1/2004